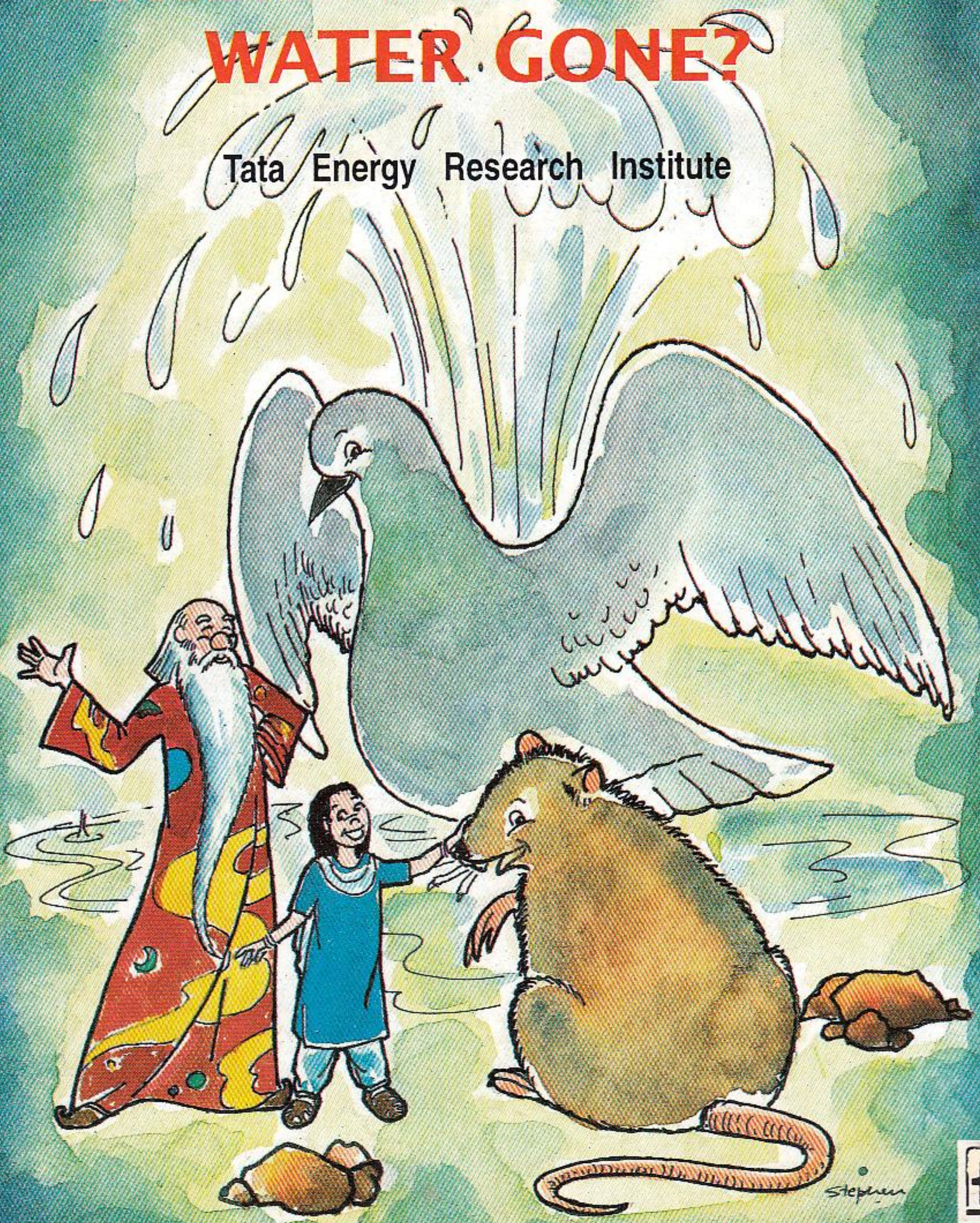
TERI ENVIRONMENT PLAY SERIES

Chhutki's Wonderful Adventures ...

WHERE HAS ALL THE WATER GONE?

Tata Energy Research Institute



TERI ENVIRONMENT PLAY SERIES

Chhutki's Wonderful Adventures ...

WHERE HAS ALL THE WATER GONE?

Water Conservation

Tata Energy Research Institute

FRANK BROS. & CO

Published by

Frank Bros. & Co. (Publishers) Ltd.
4675-A, Ansari Road, 21 Daryaganj, New Delhi-110002
Phones : 3263393, 3279936

Sales and Showroom
IV/85, Chandni Chowk, Delhi-110006
Phones : 3276791, 3268884

© 1997 by the Tata Energy Research Institute
All rights reserved. No part of this publication
may be reproduced in any form whatsoever,
without the prior written permission of the publishers.

Product conceptualization and development: Beena Menon, TERI
Text: Deepti Joshi, TERI
Editing and illustrations: Stephen Marazzi, TEAMWORK
Mechanicals: T Radhakrishnan, TERI

First Edition 1997

ISBN 81-7170-386-0

Price : Rs. 34.90

Printed at Ratna Offset, Okhla Industrial Area, New Delhi-110020.

Foreword

This set of stories and the series dealing with the environment specially designed for children mark an innovation in TERI's activities. TERI as an institute is dedicated not only to analysing problems related to energy, environment, and natural resources in general, but also to finding solutions in these areas and disseminating information about them. There could be nothing more effective in laying the foundation for solutions to tomorrow's problems than creating an awareness and understanding on these among our children. Yet, this is a task perhaps far more daunting and difficult than that of explaining these issues to adults. To translate scientific and economic logic to a level of simplicity that does not presuppose an adequate level of knowledge is difficult. The presentation has to be absorbing, interesting, and even entertaining. Yet it must have a sound intellectual and logical basis. At the very heart of solutions for the future lies the whole question of life styles and patterns of development. Yet, children are sensitive and generally unburdened by the baggage of the past. If the presentation of scientific or economic facts put before them is well thought out and appealing, their attitudes and actions would respond fully. It is for this reason that the message arising out of growing water scarcity, increasing pollution and the need for a conservation ethic has been built around a story that would appeal to the enquiring mind of a small child, who is not relying on rote memory, but who would like to absorb lessons that appeal to his or her imagination and which appear to be

an intimate part of the day to day lives of children. The issues covered in this publication attempt to put across scientific and social facts in story form to stimulate the minds of young readers.

This publication would not have been possible without the partnership that has been developed between Frank Brothers & Co., an established and reputed producer of schoolbooks, and TERI, an independent non-profit research institution. The credit for this initiation and partnership goes to Mr R C Govil, Chairman, Frank Brothers & Co. (Publishers) Ltd., for having approached TERI in the first place. As it happens, within TERI itself, considerable debate and discussion had already taken place on the need for the Institute to get into the field of environmental education for children. This partnership is, therefore, timely and relevant. In any such initiative, while every effort is made to attain standards that would make the enterprise effective and worthwhile, in the ultimate analysis, it is only the user of the material produced who can testify to its value. We, at TERI, therefore, are approaching this task in a spirit of humility and would request the youngest of our young readers to give us very critical comments on this series of publications. It is only on the basis of your feedback and views that we can improve subsequent publications to reach up to your expectations. I hope you enjoy reading about Chhutki and her adventures.

R K Pachauri
Director
TERI

For the reader

This is the third of the TERI environment play series for children between the ages of 6 and 9 years, who have basic understanding and communicating skills in English.

Intended to supplement environmental studies, this book is designed as an innovative package of fun and learning through drama, simple activity, and information. The script may be used by teachers and students in the classrooms or community centres to present information and create awareness about the problems of water pollution in a new and effective form.

Simple word meanings are included alongside the text to help children clearly understand the words and terms being used.

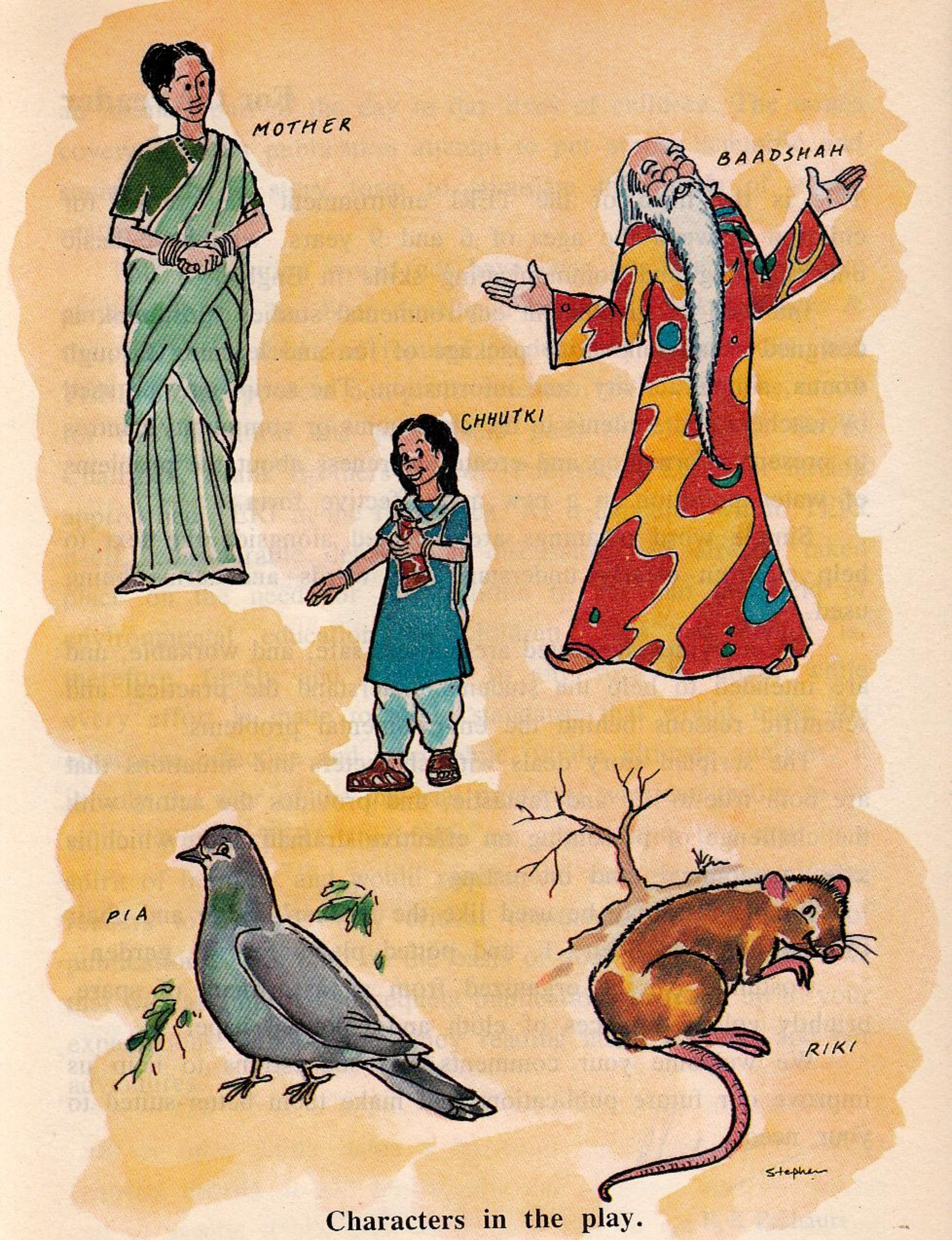
The activities suggested are simple, safe, and workable, and are intended to help the students understand the practical and scientific reasons behind the environmental problems.

The scripted story deals with characters and situations that are both true-to-life and fantastic, and provides the actors with the challenge of presenting an effective dramatization which is safe, economical, and interesting.

Simple sets may be used like the teacher's table and chair for the home in Scene 1, and potted plants for the garden.

Costumes can be organized from an assortment of spare, brightly coloured pieces of cloth and coloured paper.

We welcome your comments and suggestions to help us improve our future publications and make them better-suited to your needs.



Characters in the play.

WHERE HAS ALL THE WATER GONE?

Water conservation

Characters

Chhutki : An eight-year-old girl, who wants to know everything about the world we live in.

Mother : Chhutki's mother.

Baadshah : A doll. In Chhutki's dream it turns into a magical old man, cheerful, full of energy, and very wise. A good friend of Chhutki.

Pia : A friendly, helpful pigeon. A friend of Baadshah.

Riki : A cute, faithful rat. An old friend of Baadshah.

Scenes

Scene 1 Chhutki's home *5*

2 Outside *11*

3 Up in the sky *13*

4 The parched field *17*

5 Underground *21*

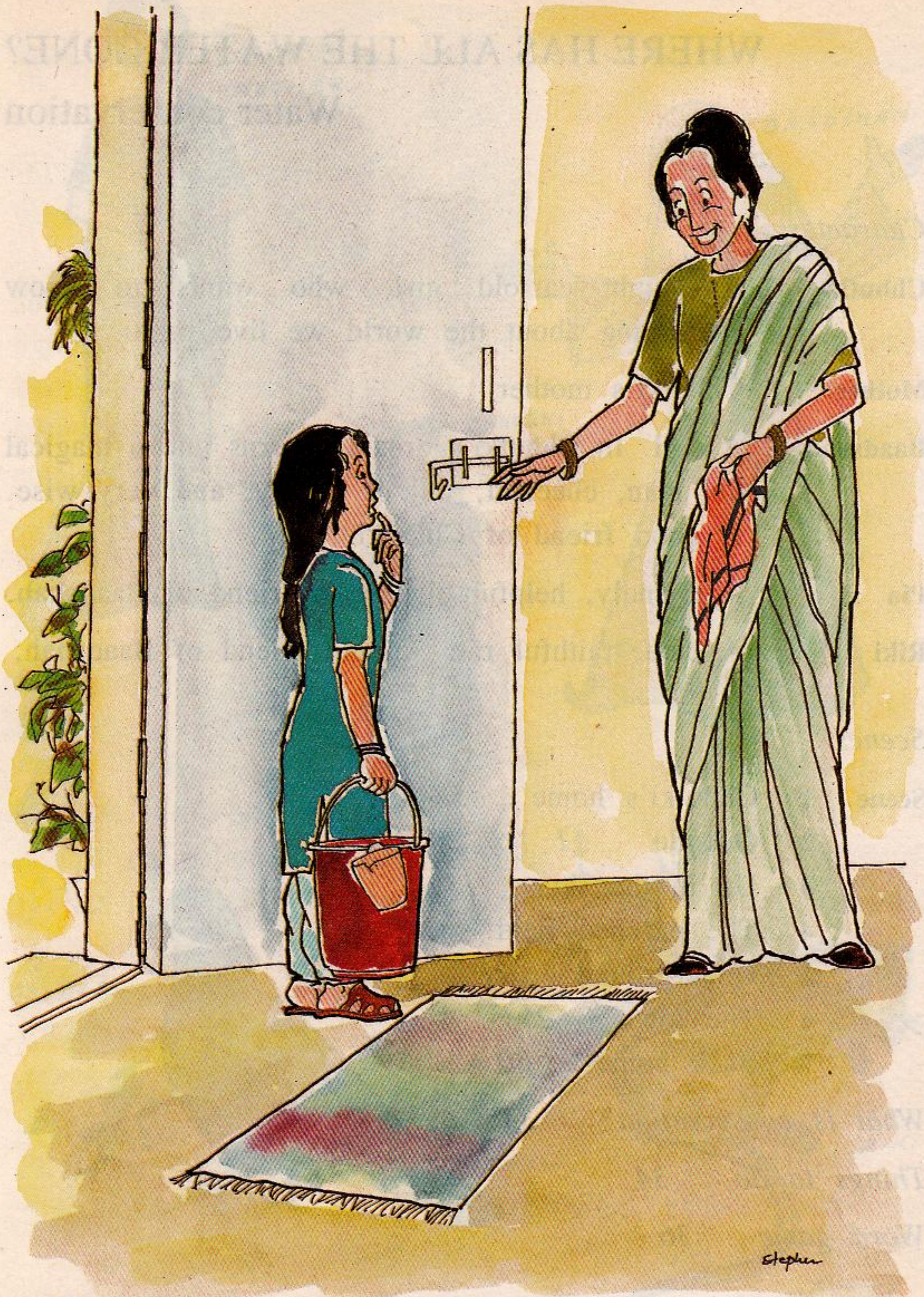
6 The town *25*

7 Back home *30*

What is conservation? *33*

Things to do *34*

Word game *36*



All I'm trying to say is that water is more precious than most of us realize.

Scene 1

Chhutki's home

It is a very warm afternoon. Chhutki is studying. She looks out of the window at the potted plants in her little garden. She gets up, fetches a bucket of water, goes outside, and begins to splash water on the plants. Her mother enters the room, comes to the window and speaks to her.

Mother : Chhutki, if you water the plants in the evening, they would be able to soak up much more water than in the daytime when it is warm.

Chhutki : But mother, they look so hot and dry.

Mother : Well, do be careful not to waste water by spilling it all over the ground.

Chhutki : Oh, mother, we have plenty (*she begins to wash her hands*) and then we have the pump...

Mother : Chhutki, I'm sure you do not need more than a mug of water to wash your hands, or little more than half a bucketful for the plants. So

why use more... or waste it by spilling it all around?

Chhutki : But, mother...

Mother : All I'm trying to say is that water is more precious than most of us realize. While we use so much of it, there are people and other creatures who don't even get enough to drink, let alone bathe or wash things with.

Chhutki : Is that so?

Mother : Yes it is! And, if we go on using it the careless way we do, I'm afraid there may not remain enough for others. And, just imagine, what will they do if it gets over?

Chhutki : Water...gets over? I find it hard to believe.

Mother : Yes, but it's not too late to do something about it. Now you finish your work. I'm going down to the bazaar to buy another bucket for storing water. Make sure you fill up some water for drinking in the mean time.

Precious: something which is very valuable
Realize: know, understand

Chhutki : Yes, mother.

(The mother leaves. Chhutki shuts the door and returns to her books. She spots the morning newspaper nearby, picks it up, and settles down to read. She then picks up 'Baadshah' from the table and placing it near her, speaks to it.)

Oh, Baadshah! Can you imagine that? No water!

It's really quite hard to believe...especially when we have so much of it... . (*She yawns.*) Oh, I'm tired. (*She goes through a few headlines in the newspaper and is rather startled by them.*) Ooh, oh! What's this: 'Groundwater wells in the northern part of the city dry up', 'Five seriously hurt in clash over water' and 'Villagers can't... .' This can't be true. (*She holds Baadshah close to her as she lies among her books and the newspaper on the bed.*) Oh...Baadshah... what will happen? (*She yawns again.*) I'm so sleepy...it was a very busy day at school today. But now I must keep my eyes open... oh well...(*She falls asleep and dreams.*)

(In her dream, Baadshah is standing near her and calling out to her.)

Baadshah : Chhutki, Chhutki, look at me!

Chhutki : (*Looking up*) Y-yes? Who... is it?

Baadshah : It's me, Baadshah!

Chhutki : (*Jumping up in bed*) Baadshah!

Baadshah : Yes, aren't you going to give me a glass of water to drink? It is a rather warm day, is it not?

Chhutki : Er...yes! Yes! (*She runs to get a glass of water. She returns empty-handed.*) I don't believe this, there's not a drop of water left in the house!

Baadshah : But you seem to have watered all the plants outside and even the pavement...

Chhutki : Er...yes...wait! I'll get some from the pump. (*She runs to the pump carrying an empty jug. She returns in a few moments, again with no water.*) I don't know what's happening...

There's no water flowing even in the pump and the neighbours say their pumps are also not working!

Baadshah : Don't panic, Chhutki. I think we need to go and find out what's wrong and where.

Chhutki : But the water...my mother will be coming... where are we going?

Baadshah : Don't worry, your mother will be at the bazaar for some time. You need to relax for a while and then we can take a proper look at the problem.

Chhutki : Anything you say, Baadshah, my friend.

Baadshah : Let's go outside (*They move towards the door*). Shut the door properly, we'll be back in a very short while.

Gosh, she is so huge!

Scene 2

Outside

Baadshah : Now just stop worrying. We are going for a little ride...and I'm sure you'll enjoy it very much... it's a ride which you've never even heard of before... But first,

Just shut your eyes and count ten in all
Soon we'll both be very small.

(*Chhutki shuts her eyes and counts till ten. When she opens them she is startled to find they both have become smaller than mice. She then hears a loud flapping sound which scares her and makes her run and hide behind Baadshah for safety.*)

Chhutki : Baadshah, Baadshah! What is that loud flapping sound?

Baadshah : (*Chuckling*) No, no, Chhutki! Don't be afraid...take a look, it's someone I want you to meet...a very good friend—Pia, the pigeon.

Chhutki : (*Peeping from behind Baadshah*) Gosh, she is so huge!

Baadshah : Wrong, it is we who have become very small, Chhutki. Pia, meet Chhutki, another very good friend.

Pia : Hello, Baadshah! Good to see you again! Hello, Chhutki! Don't be afraid. Come, hop on to my back, I'll take you wherever you wish to go.

(*Baadshah and Chhutki climb on to a nearby rock and then on to Pia's back where they sit, clinging tightly to her feathers.*)

Ready? Now, where do we go to?

Baadshah : Let's go as high as you can take us.

Pia : Very well, hold on tight.

(*She flaps her wings faster and faster, then rises into the air. Higher and higher she flies till they are almost as high as the clouds.*)

Scene 3

Up in the sky

Chhutki : This is just wonderful. Flying and gliding so high, almost touching the clouds.

Baadshah : I'm glad you like it.

Chhutki : And from up here, you can see everything for miles around.

Baadshah : Yes, we certainly can.

Chhutki : (*Suddenly pointing to the left.*) Oh look, down on the ground, to the left...

Baadshah : (*Looking carefully.*) It looks like a lot of people... they seem to be standing in a sort of...line...a very long queue.

Chhutki : Can we go down a little lower for a closer look, Pia?

Pia : Certainly, Chhutki! Hold on...
(*They go lower down so that they can now see the people clearly.*)

Gliding: smooth movement in flying

This is just wonderful. Flying and gliding so high, almost touching the clouds.

Chhutki : They are holding buckets, bottles, vessels... standing near a tap.....!

Baadshah : There seems to be no other supply in the area, so they are all trying to fill water here.

Chhutki : Oh, no! Could we not go down and see if we can help?

(Suddenly, there is a lot of shouting and screaming from the crowd. They seem to be having a fierce quarrel.)

Pia : I don't think that's a good idea right now...

Baadshah : Yes, it appears that a nasty fight has broken out among them. Let's go up higher... and away from here.

Chhutki : A fight...it's so sad to see people fighting...

Baadshah : ...over water.

(They fly higher and away from the noise. Soon they are over a huge and dry desert-like area.)

Chhutki : Look, everything down here seems so dry and lifeless.

Baadshah : Yes, nothing seems to grow here any more ...no crops...not even grass...and there doesn't seem to be any sign of water either.

Chhutki : And look, there's a poor little calf crying of thirst near that dry water hole.

Baadshah : Pia, let's go down and check the place. We'll land somewhere behind that bush, so no one can see us.

Scene 4

The parched field

Pia lands softly on the ground behind a dry bush. Baadshah and Chhutki quickly jump off her back.

Baadshah : Now, Pia, you fly off and look for anyone in trouble nearby. We'll then see how we can help. Meanwhile, we'll search for water. (*Pia flies off*).

(*Baadshah then puts his hands to his lips and whistles, three times.*)

Chhutki : What are you doing, Baadshah?

Baadshah : Another little surprise for you. I'm just calling our next little means of transport. Look...!

(*Out of a hole in the parched earth nearby* ***pops*** *a furry little head with large eyes and* ***a*** *cute pink nose. Soon also come out four* ***little*** *legs and a long pink tail.*)

Meet another good old friend, Riki the rat.

Parched: hot and dry

Meet another good old friend, Riki the rat.

Riki : Baadshah! How are you? You still whistle like a young boy of 10! Ha, ha! (*They laugh.*)

Baadshah : Riki, meet Chhutki, another very dear friend.

Riki : Delighted to meet you, Chhutki.

Chhutki : Glad to meet you too, Riki. Baadshah, you do have the most amazing friends, truly!

Riki : Now tell me, what brings you both to this dry, deserted place? There is not even a drop of water around to offer you.

Baadshah : That's exactly why we are here: to find the sources of water.

Chhutki : We must find some soon, or many people and other creatures will be in great trouble.

Riki : Oh yes, we must. But how can I help?

Baadshah : First, take us underground, as deep as one can go. Then, we will look for a place to dig further down. Maybe we can find the water-table...we must try at least.

Water-table: a level below which water is available underground

Riki : Earlier, I had to dig only a couple of metres to reach the water-table, but now, even after 8 to 10 metres, I don't seem to find it. I haven't dug that deep for many years now, but dig I can, and there's no harm in trying. So hop on to my back, hang on tight, we'll travel downward as far as these deserted rat tunnels can take us.

(*Chhutki and Baadshah quickly climb on to Riki's furry back and hang on tight. Riki then runs into the nearby rat hole and begins to travel through the underground tunnels, downwards.*)

Scene 5

Underground

Chhutki : Gosh, Riki, there are so many tunnels all around us!

Riki : Well, they are all empty.

Chhutki : How do you know which one to take?

Riki : Ha, ha! All I can say is, it comes naturally when you're a rat!

(All chuckle. They keep moving till they come to a small underground cave where several white rocks seem to glow and light up the place. Baadshah and Chhutki get off Riki's back, down on to the floor.)

Chhutki : Ooooh... it's so lovely and cool down here.

Baadshah : Yes, cool, that's just what we are looking for. Riki, do you smell water anywhere close by?

Naturally : knowing without having to learn it

Riki : (*Riki lifts his nose up and wiggles his whiskers left and right, then stops suddenly, facing the right corner of the cave.*) This side seems to smell wetter. In fact, I can even hear a very faint sound coming from down below.

Baadshah : Dig Riki, dig—as fast as you can, downwards, in this direction. We will keep removing the earth as you dig.

(*Work begins. Riki digs downward at great speed, while Baadshah and Chhutki keep removing the earth he digs up. Suddenly they hear Riki calling from way down.*)

Riki : (*From somewhere underground*) Hellooo, Baadshah...Chhutki...can you hear me?

Chhutki : Yeeeesss, we caaann Rikiiii!!!

Riki : Hey, I've found water, but it is really very deep down.

Chhutki : Come back, Riki! It is now quite clear that if we have to find water, we will have to dig

---

Wiggles: shakes quickly from side to side
Whiskers: long hair on the rat's nose

really deep. Think of all the effort we have to make now just because we were not careful about conserving water earlier.

Riki : Yes!!!! Now, Baadshah and Chhutki, grab my tail, we're going up!

(They both hold on to Riki's tail, and move through the tunnels to the surface. Pia comes swooping to greet them and the four friends sit and chat merrily in the sun for a while. Soon it is time to leave.)

Baadshah : Well, it's time we moved on. Thank you, Pia and Riki, for the rides and all your help.

Chhutki : Yes, you were wonderful. I shall miss you. I have learnt such a lot today. I hope everyone realizes soon that if they are not careful, the water-table, which has already gone down so deep, will soon be out of reach. I have learnt this lesson the hard way. And, I pray that everyone learns it too and remembers it as well.

Conserving: using something precious very carefully so as not to waste
Swooping: flying down fast

Pia : We shall miss you too, but you will come back sometime?

Riki : You will, won't you?

Baadshah : Oh yes, we will.

(They wave goodbye as Pia flies into the sky and Riki runs off into another hole nearby.)

Chhutki : Baadshah, have you forgotten something?

Baadshah : Oh yes, I nearly did.

Just close your eyes and count till three
Back to normal size we'll be.

Chhutki : This is much better now. My neck was beginning to hurt, looking up at everything all the time. *(Both chuckle.)*

Baadshah : Yes, Chhutki, now that we've seen how things are on one side, let's go and see how they are on the other side as well.

Chhutki : Other side?

Baadshah : *Shut your eyes again, and count till three*
On the other side we shall be.

Scene 6

The town

When Chhutki opens her eyes, she finds herself and Baadshah standing in a street of a town rather like her own.

Chhutki : My! This place looks quite nice, almost like where I live. I'd like to meet some of these people.

Baadshah : I'm not so sure you would.

Chhutki : Why?

Baadshah : (*Pointing to a man drinking water from a tap which flows freely.*) Most of the water falls to the ground, in a big pool.

Chhutki : Oh dear, he is wasting so much water! Why can't he use a mug to drink, or at least not spill so much water on the ground! (*The man leaves.*) Look, he has walked off without even turning the tap off!
(*She calls out to the man.*) Oh! Sir, wait, the tap... you've left it running...! (*The man*

ignores her call and walks off.) How odd, how rude, how unconcerned! (*She goes to the tap and turns it off.*)

Baadshah : Now, take a look across the street.

(*She looks across the street and sees two small children bathing and two women washing clothes near another open tap.*)

Chhutki : (*Running across to them.*) Oh! please, you must not waste so much water like this. Use that bucket and a mug for bathing the children and also for washing your clothes. Don't let so much water be wasted.
(*There is no response from them, as they continue their activity. She returns to Baadshah.*) This is very sad indeed. They just don't seem to listen. They don't seem to care! (*She looks very upset.*)

Baadshah : Come, Chhutki! Let us walk on. (*As they walk on, they are almost drenched as water*

Ignore: not take notice
Unconcerned: without care
Response: reply
Drenched: soaking wet

from a large overhead tank suddenly pours freely on to the street near them.) The tank is overflowing.

Chhutki : Goodness! Just look at the water that is being wasted...and there are people who don't even have enough to drink! (*She bangs on the door of the house to which the tank belongs.*) Please! Please! Your tank is overflowing! Water is being wasted! Do something! (*There is no response.*)

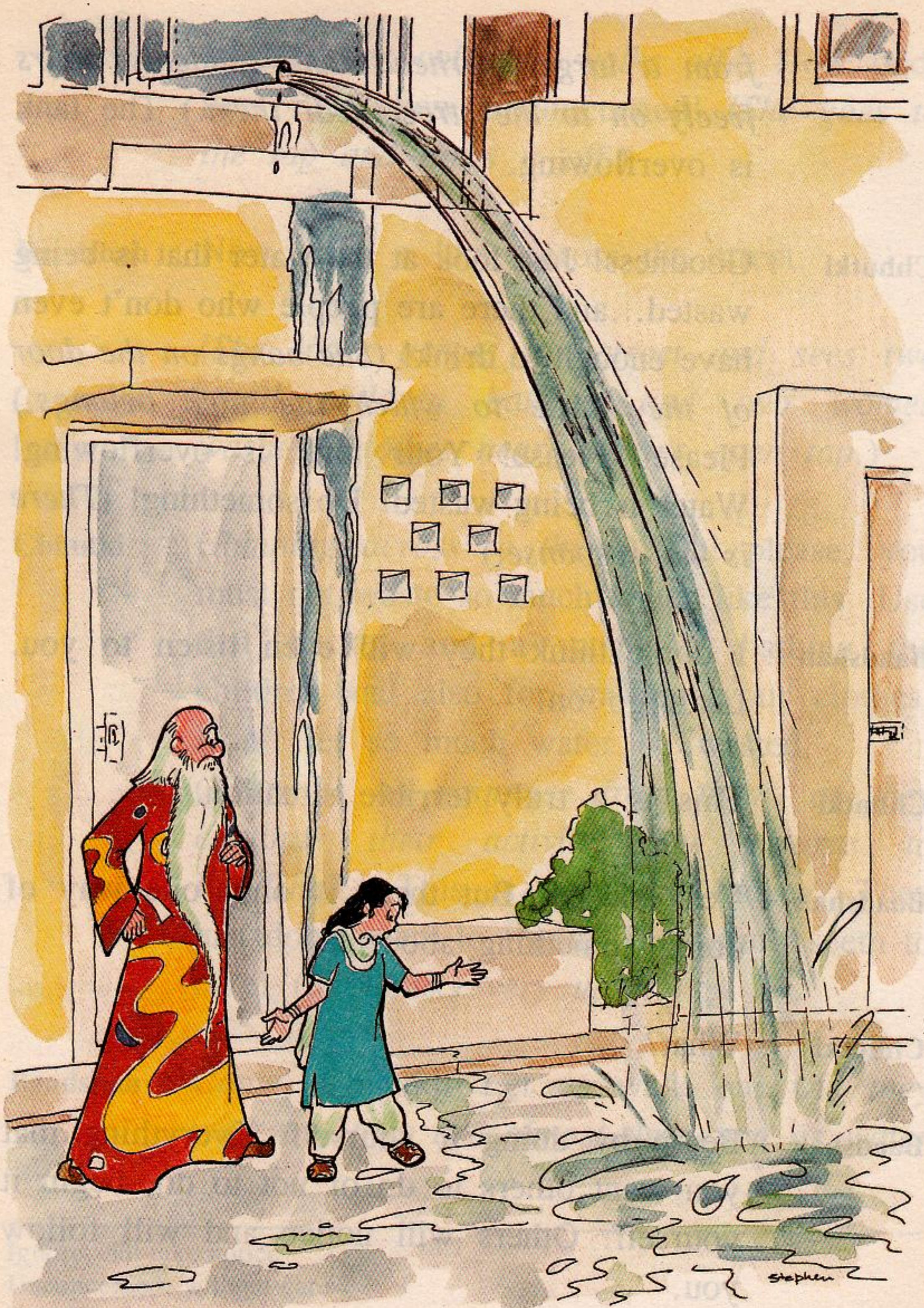
Baadshah : I don't think they will even listen to you. Let's go on.

Chhutki : This is a truly terrible situation.

Baadshah : Yes, indeed! But there is only one way of doing something about it.

Chhutki : What?

Baadshah : Begin by doing it yourself. Everything that you want others to do or not to do, begin it yourself. Others will notice and will follow you.



Just look at the water that is being wasted.

Chhutki : I'll do anything to be able to stop this dreadful waste of water. Don't people realize, water cannot be there always if they go on using it carelessly?

Baadshah : Sadly, it seems people may only realize its worth when they don't have it any more, or, will that be too late?

Chhutki : No, it must not be. I will do all I can and also ask my friends to help as well.

Baadshah : A good beginning. But first, you must get back home and fill up some water, right?

Chhutki : But there was no water!

Baadshah : Try again.

Chhutki : All right, I will. Goodbye for now, Baadshah, and thanks for everything I have learnt on these wonderful trips with you.

Baadshah : You are most welcome, any time. Goodbye for now my little friend.

Shut you eyes and count till three
Soon safe at home, you'll be.

Dreadful: fearful, sad

Scene 7

Back home

Chhutki : (*Waking up from her nap.*) Gosh, I must have dozed off! (*She jumps off the bed.*) Oh yes, I have to fill some water. (*She takes a bucket and goes out to fill it. She returns in a moment with a bucket full of water.*) Thank goodness there is water flowing in the pump. (*She places the bucket in a corner and covers it with a cloth. She then rushes back to her work.*) And now, I have something very important to do. I must, right now, make a list of all the ways in which I can save water myself.

(*She begins writing, speaking out aloud at the same time.*)

1. *Brushing teeth*: only one mug of water.
2. *Bathing*: only one bucket of water.
3. *Drinking*: use a glass or a mug.
4. *Washing clothes and vessels*: use bucket of water and a mug.
5. *Plants*: only half a bucket of water every evening.
6. *Cleaning floors*: use small bucket of water and a cloth.
7. No spilling of water.
8. No dirtying of clean water.
9. Turn off all taps when not in use.
10. Make sure taps or tanks do not leak.

11. Look out for leaking taps or tanks in the neighbourhood. Speak to owners to get them repaired.

12. Meet friends, give them a copy of this list for their own use, and suggest that they pass it on to others as well.

(There is a knock at the door. Chhutki opens it for her mother who has returned from the bazaar with a new bucket.)

Mother : Chhutki...have you...

Chhutki : Don't worry, mother! Yes, I've filled a bucket of water. It's over there, covered, in the corner. And, I promise I will never ever waste water again.

Mother : Well, well, dear, what has come over you... so suddenly?

Chhutki : (*Smiling.*) Nothing...er... just...

Mother : (*Knowingly.*) Baadshah, again...??? Yes?

(*Chhutki nods her head, smiling.*)

You know, Chhutki, he may be just a toy... sitting on your table...but, if he really does make such a difference in your life, I really do wish every little boy and girl to have a Baadshah of his or her own.

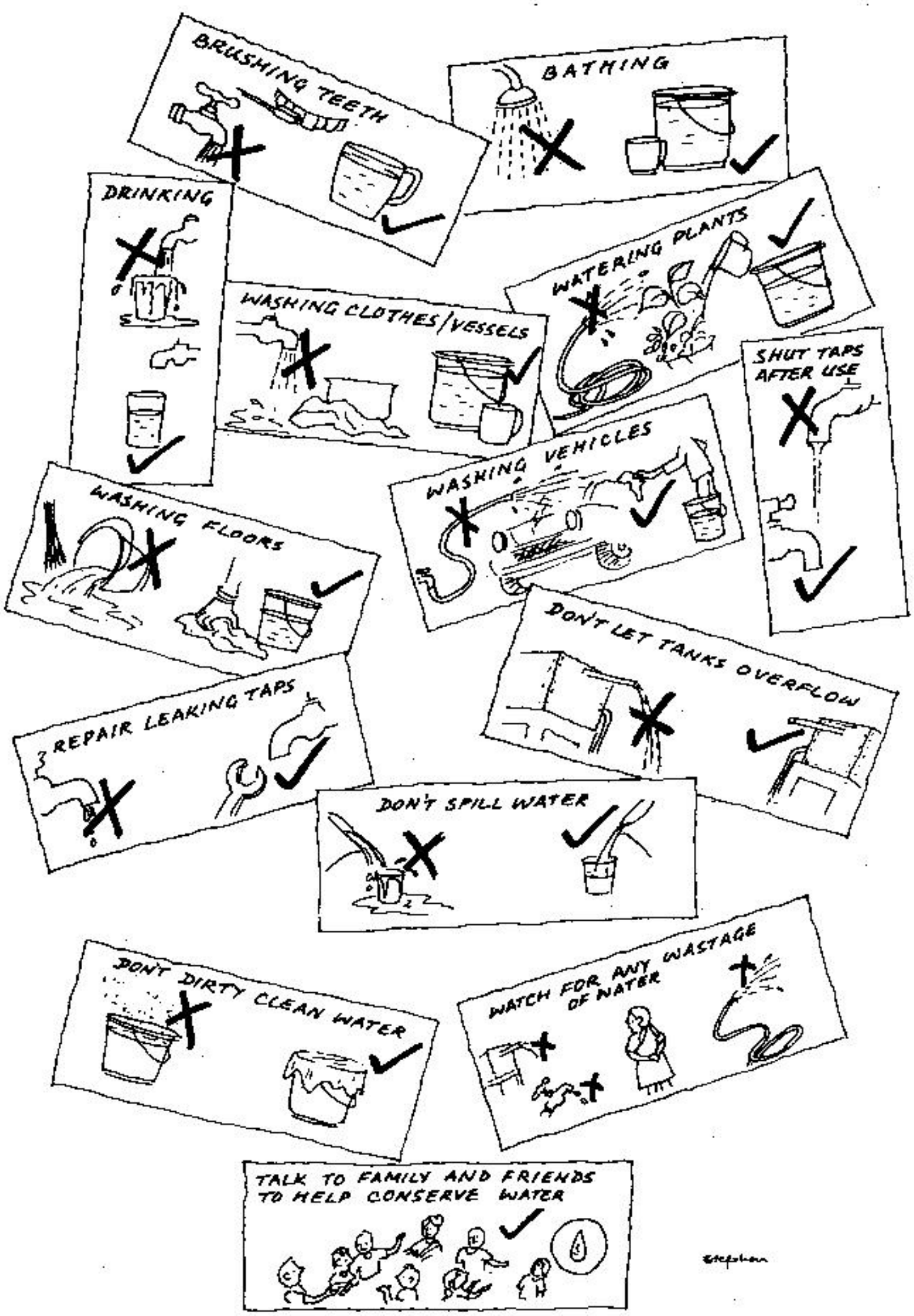
Chhutki : Oh yes, mother. I wish so too.

I really do wish every little boy and girl to have a Baadshah of his or her own.

What is conservation?

Conservation means using something precious like water, soil or energy, very carefully so that it can be used by us for a longer time.

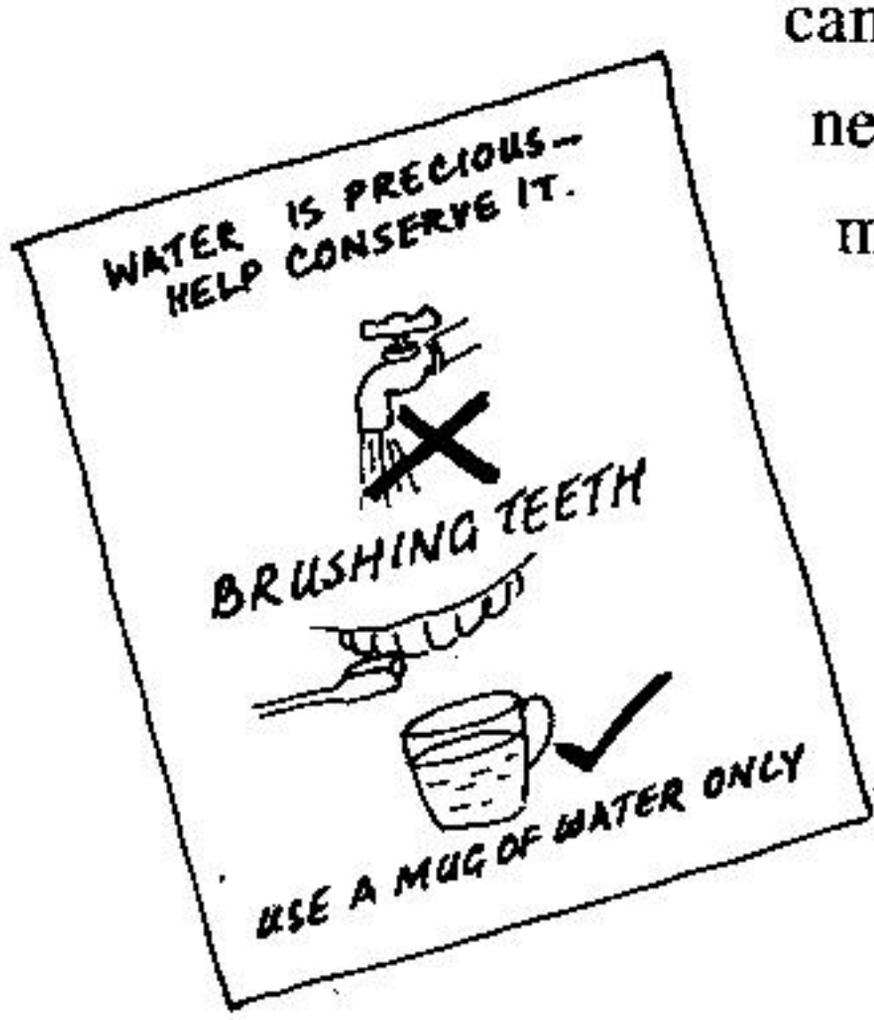
You too must conserve water every day. Here are a few suggestions to help you.

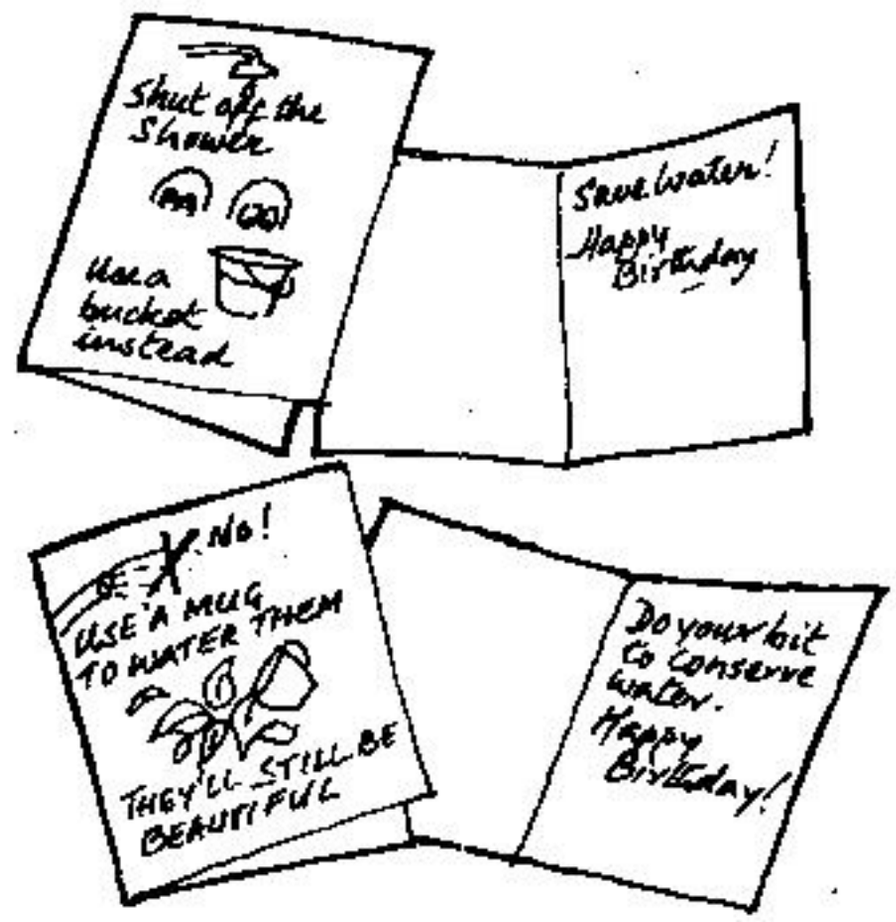


Things to do

Posters

Using sheets of chart paper and pencils, pens, crayons or felt-pens, you can make posters on each of the 'conservations suggestions' listed in the figure. These can be used for display at school or in your neighbourhood so that people get to know more about how to conserve water.





Conservation cards

On good stiff paper you can make simple greeting cards with messages and drawings on water conservation. These can be sent to family members, friends, and others to show them you care and want them to care for water conservation as well.

Water Watch Club.

You can, with you friends, form your own Water Watch Club (WWC)—a group that watches the way people use water and which shows them how and why they must conserve it.

You can hold a small exhibition in your neighbourhood park where you can display your posters, cards and even demonstrate some methods of water conservation. Invite your friends and neighbours to come to the exhibition and tell them about your new club and if they too would like to help.

Ask WWC members to watch for leaking taps, tanks or pipes, and if they find any, they can speak directly to the owner asking him or her to repair them in order to save water, or they could phone or even write him or her a short note as shown.

Dear Mr/Mrs ....

Your water tank leaks every day. Water is very precious. So many people don't even get enough water to drink. We must save water. Please help by getting your tank repaired soon.

Thanking you,

Yours sincerely

for WWC

(Water Watch Club)

Word game

Circle 16 words from this word game and you will be considered an expert on water. See if you can give definitions to these words. Here's a hint. All the words are related to water. The word 'water' is already selected for you. Find out the rest.

C		R	E	I			R	H
O		E	S		C		A	S
N	A	T	U	R	E	E	I	I
S		A	E	E		V	N	F
E	E	W	R	C	W	A		L
R		A	S	Y	E	P		A
V		N	I	C	L	O		K
E	O	P	O	L	L	U	T	E
W	R	I	V	E	R	R		

Answers

Conserve, Lake, Water, Reuse, Recycle, Nature, River, Pollute, Ocean, Ice, Sea, Rain, Well, Fish, Snow, Vapour

FRANK BROS. & CO. (PUBLISHERS) LTD.
4675-A, Ansari Road, 21 Daryaganj, New Delhi-110002.

ISBN 81-7170-386-